

AMENDMENTS

Applicant requests that the Examiner enter the following amendments:

IN THE CLAIMS:

1. (Previously presented) A method for ~~detecting, inferring, or monitoring a neoplastic disease in a human, wherein said neoplastic disease is associated with expression or overexpression of one or more a human~~ RNA species in blood plasma or serum from a human, the method comprising the steps of:
 - a) extracting total extracellular RNA from blood plasma or serum ~~of~~ from a human;
 - b) amplifying or signal amplifying quantitatively or qualitatively a portion of the extracted RNA or cDNA therefrom to produce an amplified product or signal, using primers or probes specific for a human RNA species or cDNA therefrom, ~~wherein said RNA is expressed or overexpressed in a neoplastic disease; and~~
 - c) detecting quantitatively or qualitatively the amplified product or signal and comparing the detected amplified product or signal to a reference amplified product or signal of said human RNA species or cDNA extracted determined from plasma or serum from a human group or population without disease,wherein ~~a neoplastic disease is detected, inferred or monitored in a human when the amplified product or signal of one or more a human RNA expressed or species extracted from human blood plasma or serum is determined to be overexpressed in said neoplastic disease, or cDNA therefrom, when said RNA species or cDNA therefrom is detected in an amount or concentration greater than [a] the reference amount or concentration for said amplified product or signal of said RNA species or cDNA therefrom determined~~ extracted from blood plasma or serum from a human group or population without said neoplastic disease.

2. (Currently amended) ~~A~~ The method of according to claim 1, wherein the overexpression of a tumor-associated extracellular RNA species in human blood plasma or serum indicates that the disease is a neoplastic disease is cancer or premalignancy.
3. (Withdrawn) The method of claim 1, wherein the amplified product is produced from a non-tumor related RNA or cDNA produced therefrom.
4. (Original) The method of claim 1, wherein the amplified product is produced from a tumor related RNA or cDNA produced therefrom.
5. (Currently amended) ~~A method for detecting, inferring, or monitoring a neoplastic disease in a human, wherein said neoplastic disease is associated with the expression or overexpression of one or more a human RNA species in a non-cellular fraction of blood from a human,~~ A method for detecting, inferring, or monitoring a neoplastic disease in a human, wherein said neoplastic disease is associated with the expression or overexpression of one or more a human RNA species in a non-cellular fraction of blood from a human, the method comprising the steps of:
 - a) extracting total extracellular RNA from a non-cellular fraction of blood from a human;
 - b) amplifying or signal amplifying quantitatively or qualitatively a portion of the extracted RNA or cDNA therefrom to produce an amplified product or signal, using primers or probes specific for a human RNA species or cDNA therefrom; ~~wherein said RNA is expressed or overexpressed in a neoplastic disease); and~~
 - c) detecting quantitatively or qualitatively the amplified product or signal and comparing the detected amplified product or signal to a reference amplified

~~product or signal of said RNA species or cDNA extracted determined from non-cellular fractions of blood from a human group or population without a disease,~~
wherein a neoplastic disease is detected, ~~inferred or monitored in a human when the amplified product or signal of one or more a human RNA expressed or species extracted from a non-cellular fraction of human blood is determined to be overexpressed in said neoplastic disease when said RNA species, or cDNA therefrom, is detected in an amount or concentration greater than [a] the reference amount or concentration determined~~ amplified product or signal of said RNA species or cDNA therefrom extracted from [a] non-cellular fractions of blood from a human group or population without said neoplastic disease.

6. (Currently amended) ~~A The method of according to claim 5, wherein the disease is a neoplastic disease when a tumor-associated RNA species in human blood plasma or serum is overexpressed is cancer or premalignancy.~~
7. (Withdrawn) The method of claim 5, wherein the amplified product is produced from a non-tumor related RNA or cDNA produced therefrom.
8. (Original) The method of claim 5, wherein the amplified product is produced from a tumor related RNA or cDNA produced therefrom.
9. (Currently amended) ~~A method to detect, infer, or monitor a neoplastic disease in for~~ comparing an amount or concentration of a human RNA species present in plasma or serum from a human to said RNA species present in plasma or serum from a group or

~~population of humans without cancer, wherein the neoplastic disease is associated with the expression or overexpression of one or more tumor-associated human RNA species, the method comprising the steps of extracting total extracellular RNA from plasma or serum from a human, a portion of which comprises a human RNA species, determining an amount or concentration or comparative value of one or a plurality of tumor associated human of said human RNA species associated with said neoplastic disease in [a] the extracted portion of human blood plasma or serum from the human, and comparing the amount or concentration or comparative value of one or a plurality of tumor-associated human of said human RNA species from plasma or serum of said human to [a] the reference range RNA amount [,] or concentration, or value for said RNA species determined from plasma or serum from a defined human group or population without cancer neoplastic disease, wherein a neoplastic disease is detected, inferred, or monitored in a human when the amount or concentration or comparative value of one or a plurality of said tumor-associated human RNA in said human is greater than a defined reference range RNA amount, concentration, or value for said tumor-associated RNA determined from plasma or serum from a human group or population without a neoplastic disease.~~

10. (Withdrawn) The method of claim 9, wherein the defined group or population comprises healthy humans.
11. (Withdrawn) The method of claim 9, wherein the defined group or population comprises healthy animals.

12. (Currently amended) The method of claim 9, wherein the ~~group or population with a neoplastic disease comprises humans with~~ human has cancer.
13. (Cancelled)
14. (Currently amended) The method of claim 9, wherein the ~~(group or population with a neoplastic disease comprises humans with premalignancy)~~ human has not been diagnosed with cancer.
15. (Cancelled)
16. (Cancelled)
17. (Currently amended) The method of claim 9, wherein the ~~defined~~ group or population comprises humans of a specific gender or age group.
18. (Currently amended) The method of claim 9, wherein the ~~defined~~ group or population comprises humans who smoke.
19. (Withdrawn) The method of claim 9, wherein the defined group or population comprises humans with a family or genetic history of cancer or cancer risk.

20. (Currently amended) A method ~~to detect, infer, or monitor neoplastic disease in~~ for comparing an amount or concentration of an extracellular human RNA species present in a non-cellular fraction of blood from a human to said RNA species present in non- cellular fractions of blood from a group or population of humans without cancer, wherein the neoplastic disease is associated with the expression or overexpression of one or more tumor-associated human RNA species; the method comprising the steps of extracting total extracellular RNA from a non-cellular fraction of blood from a human, a portion of which comprises a human RNA species, determining an amount or concentration ~~or comparative value of one or a plurality of tumor-associated human~~ of said human RNA species ~~associated with said neoplastic disease in [a] the extracted~~ portion of a non-cellular fraction of blood from the human, and comparing the amount or concentration of said human RNA species from a non-cellular fraction of blood of said human to [a] the reference range RNA amount [,] ~~or concentration, or value for said human RNA species~~ determined from non-cellular fractions of blood from a defined human group or population without ~~cancer~~ neoplastic disease, wherein a neoplastic disease is detected, inferred, or monitored in a human when the amount or concentration or comparative value of one or a plurality of said tumor-associated human RNA in said human is greater than a defined reference range RNA amount, concentration, or value for said tumor- associated RNA determined from plasma or serum from a human group or population without neoplastic disease.
21. (Withdrawn) The method of claim 20, wherein the defined group or population comprises healthy humans.

22. (Withdrawn) The method of claim 20, wherein the defined group or population comprises healthy animals.
23. (Currently amended) The method of claim 20, wherein the ~~group or population with a neoplastic disease comprises humans with~~ human has cancer.
24. (Cancelled)
25. (Currently amended) The method of claim 20, wherein the (~~group or population with a neoplastic disease comprises humans with premalignancy~~) human has not been diagnosed with cancer.
26. (Cancelled)
27. (Cancelled)
28. (Currently amended) The method of claim 20, wherein the ~~defined~~ group or population comprises humans of a specific sex or age group.
29. (Currently amended) The method of claim 20, wherein the ~~defined~~ group or population comprises humans who smoke.

30. (Withdrawn) The method of claim 20, wherein the defined group or population comprises humans with a family or genetic history of cancer or cancer risk.
31. (Withdrawn) A method of comparing an amount or concentration of a housekeeping gene RNA from blood plasma or serum to an amount or concentration of a tumor-associated RNA from blood plasma or serum of a human, the method comprising the steps of extracting RNA from blood plasma or serum of a human, assaying quantitatively a portion of the extracted RNA to determine an amount or concentration of a housekeeping gene RNA and an amount or concentration of a tumor-associated RNA, and comparing the amount or concentration of the housekeeping gene RNA and the tumor-associated RNA thereby.
32. (Withdrawn) A method of comparing an amount or concentration of a housekeeping gene RNA from a non-cellular fraction of blood to an amount or concentration of a tumor-associated RNA from a non-cellular fraction of blood of a human, the method comprising the steps of extracting RNA from a non-cellular fraction of blood of a human, assaying quantitatively a portion of the extracted RNA to determine an amount or concentration of a housekeeping gene RNA and an amount or concentration of a tumor-associated RNA, and comparing the amount or concentration of the housekeeping gene RNA and the tumor-associated RNA thereby.
33. (Withdrawn) A method of evaluating a human or animal for a disease comprising the step of assaying quantitatively blood plasma or serum from the human or animal to determine an amount or concentration of a non-tumor related RNA.

34. (Withdrawn) A method of evaluating a human or animal for a disease comprising the step of assaying quantitatively non-cellular fraction of a bodily fluid from the human or animal to determine an amount or concentration of a non-tumor related RNA.
35. (Cancelled)
36. (Cancelled)
37. (Cancelled)
38. (Cancelled)
39. (Cancelled)
40. (Cancelled)
41. (Cancelled)
42. (Cancelled)
43. (Cancelled)
44. (Cancelled)
45. (Currently amended) A The method of claim 9, wherein the neoplastic disease is the human is determined to have cancer or premalignancy and wherein the RNA species is a tumor-associated RNA.
46. (Currently amended) A The method of claim 20, wherein the neoplastic disease is the human is determined to have cancer or premalignancy and wherein the RNA species is a tumor-associated RNA.
47. (Cancelled)

- 48. (Cancelled)
- 49. (Withdrawn) The method of claim 33, wherein the disease is cancer or premalignancy.
- 50. (Withdrawn) The method of claim 34, wherein the disease is cancer or premalignancy.